ABSTRACT

A multimedia object retrieval and annotation system integrates an annotation process with object retrieval and relevance feedback processes. The annotation process annotates multimedia objects, such as digital images, with semantically relevant keywords. The annotation process is performed in background, hidden from the user, as the user conducts normal searches. The annotation process is "semi-automatic" in that it utilizes both keyword-based information retrieval and content-based image retrieval techniques to automatically search for multimedia objects, and then encourages users to provide feedback on the retrieved objects. The user identifies objects as either relevant or irrelevant to the query keywords and based on this feedback, the system automatically annotates the objects with semantically relevant keywords and/or updates associations between the keywords and objects. As the retrieval-feedback-annotation cycle is repeated, the annotation coverage and accuracy of future searches continues to improve.